The inquiry sets forth the extent to which the metric system has been adopted by Latin America.

Cours d'analyse mathématique. Par E. GOURSAT. Troisième édition revue et augmentée. Tome 2, Paris, 1918. 8vo. 2 + 672 pp. Price (unbound) 36 francs.

Quotation from the preface: "Cette nouvelle édition ne diffère de la précédente que par quelques additions, dont la plus importante est relative à une proposition célèbre de M. Picard. Ce théorème a fait l'objet d'un grand nombre de travaux, qui ont conduit à une démonstration presque élémentaire, ne faisant appel qu'à des inégalités classiques de la théorie des séries entières. Il m'a semblé qu'une démonstration de cette nature avait sa place marquée dans un Cours d'Analyse."

The third edition of tome 2 contains 24 pages more than the second edition.

NOTES.

In *A Calendar of Leading Experiments* by W. S. FRANKLIN and B. MacNUTT (South Bethlehem, Pa., Franklin, MacNutt, and Charles, 1918), Part I (pages 1–68) is entitled, "Mechanics," and Part VI (pages 163–205), "The dynamics of wave-motion."

In *The California Alumni Fortnightly*, volume 12, page 131, May 3, 1919, there is a portrait of Professor FRANK MORLEY, who is to teach in the Summer School of the University of California.

The Carnegie Institution of Washington has published the first volume of Professor L. E. DICKSON's monumental *History of the Theory of Numbers* (Paper, $7.50; cloth, $8.00). The second volume is in the press.

An Italian translation of J. W. Young's *Lectures on Fundamental Concepts of Algebra and Geometry* has been recently published by Luigi Pierro, Naples.[1] The translated text has neither been enlarged nor diminished in the new edition. The translator has, however, added a large number of explanatory and bibliographical notes.

Wiley has just published *Lectures on Ten British Physicists* by the late ALEXANDER MACFARLANE. It is a companion volume to his *Lectures on Ten British Mathematicians* published in 1916 and it is No. 20 in the series of "Mathematical Monographs." The physicists considered are: James Clerk Maxwell (1831–1879); William John Macquern Rankine (1820–1872); Peter Guthrie Tait (1831–1901); Sir William Thomson, First Lord Kelvin (1829–1907); Charles Babbage (1791–1871); William Whewell (1794–1866); Sir George Gabriel Stokes (1819–1903); Sir George Biddell Airy (1801–1892); John Couch Adams (1819–1892); Sir John Frederick William Herschel (1792–1871).

In *The American Year Book . . . 1918* (New York, Appleton, 1919) are articles on "Mathematics" (pages 615–617) by G. A. Miller, and on "Astronomy"

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[1] *I Concetti fondamentali dell'Algebra e della Geometria*, Versione e Note di Domenico Mercogliano, Con Prefazone di Gino Loria 1919. 418 pp. Price 8 lire.

(pages 617–622) by R. S. Dugan. The five divisions of the article on mathematics are entitled: 1. History of Mathematics; 2. Effects of the War on Mathematical Advances; 3. Advances in Pure Mathematics; 4. Teaching of Mathematics; 5. Personal Notes. It is stated that Professor Florian Cajori "enjoys the unique distinction of being the first regular university professor of this history [of mathematics] in the world." There is no mention of America's mathematical contributions to ballistics and other branches of applied mathematics. Under Personal Notes there are references to one foreigner, G. Cantor, "founder of the theory of aggregates," who died January 6, and to eight Americans.

Encyclopædia of Religion and Ethics. Edited by JAMES HASTINGS with the assistance of J. A. Selbie and L. H. Gray. Edinburgh, Clark, Volume 9, 1917; Volume 10, 1919. These volumes include the following articles of interest to the mathematician:

"Numbers"—Introductory by T. Davidson, 406–407; Aryan by A. B. Keith, 407–413; Semitic by W. Cruickshank, 413–417.

"Pascal" by W. F. Cobb, 652–658; one of the three sections of the biography is entitled "His mathematical aptitude."

"Greek Philosophy" by Paul Shorey, 859–865.

"Plato and Platonism" by Henry Jackson, 54–61.

"Points of the Compass" by T. D. Atkinson, 73–88.

"Pythagoras and Pythagoreanism" by John Burnet, 520–530.

A New English Dictionary on Historical Principles (Oxford, Clarendon Press) —the greatest dictionary, in any language, ever published—is nearing completion. The part issued in March, 1918, contains discussions of the following words of interest to the mathematician: Supplement, surd, surdesolid and sursolid, surface, surveying and surveyor, suversed, and swan-pan (*also* souan-, shwan-, swam-, suan-). The Chinese word Soroban, which occurs frequently in English writings, and is another equivalent of swan-pan, is not given in the 'N.E.D.'

The earliest quotations given in connection with some of these words as mathematical terms are as follows: 1570, Billingsley's *Euclid,* Book 1, Theorem 32, "In every parallelograme, the supplementes of those parallelogrammes which are about the diameter, are equall the one to the other"—1551, Recorde's *Path. Knowl.* II. Pref., "Quantitiees partly rationall, and partly surde." [Surd is derived from the Latin word *surdus* meaning deaf. "The mathematical sense 'irrational' arises from Latin *surdus* being used to render Greek ἄλογος (Euclid, bk. 10, Def.), apparently through the medium of Arabic *açamm,* deaf."]—1557, Recorde's *Whetst.* G iiib, "That root is a Sursolide roote, that yieldeth a Sursolide nomber"—[Suversed = supplement + versed; suversed sine: the versed sine of the supplement.[1]] 1827, Airy in *Encycl. Metrop.* (1845) I, 674, "The versed sine

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[1] That is, suvers $x = 1 + \cos x$. The term suversed was used before 1827; for example in: (1) J. de Mendoza Rios, *A complete Collection of Tables for Navigation and Nautical Astronomy,* London, 1805; (2) W. Lax, *Tables to be used with the Nautical Almanac for finding Latitude and Longitude at Sea,* London, 1821; (3) E. Riddle, *Treatise on Navigation and Nautical Astronomy . . . with all the Tables requisite . . .* London, 1824.

of one is the suversed sine of the other"—1736 tr. *Du Halde's Hist. China*, III, 70," "In casting up Accounts they [the Chinese] make use of an Instrument called Souan pan." [The term is derived from the Chinese and means, literally, reckoning board.]

ARTICLES IN CURRENT PERIODICALS.

AMERICAN JOURNAL OF MATHEMATICS, volume 41, no. 1, January, 1919: "Groups generated by two operators whose relative transforms are equal to each other" by G. A. Miller, 1–4; "A classification of general (2, 3) point correspondences between two planes" by T. R. Hollcroft, 5–24; "The classification of plane involutions of order (3)" by Anna M. Howe, 25–48; "On surfaces containing a system of cubics that do not constitute a pencil" by C. H. Sisam, 49–59; "An isoperimetric problem with variable end-points" by A. S. Merrill, 60–78—No. 2, April: "Asymptotic satellites near the straight-line equilibrium points in the problem of three bodies" by D. Buchanan, 79–110; "Concerning the invariant theory of involutions of conics" by W. Sensenig, 111–122; "Note on seminvariants of partial differential equations" by A. L. Nelson, 123–132; "On a method for determining the non-stationary state of heat in an ellipsoid" by B. Datta, 133–142; "Nilpotent algebras generated by two units, i and j, such that i^2 is not an independent unit" by G. W. Smith, 143–164.

ANNAES SCIENTIFICOS DA ACADEMIA POLYTECHNICA DO PORTO, volume 11, 1916, no. 1: "Sur différents procédés d'approximation" by A. Aubry, 5–35; "Timorenses de Okussi e Ambeno" by A. A. Mendes Corrêa, 36–51; "Palavras proferidas na sessão do lançamento da primeira pedra da Escola de Pharmacia da Universidade do Porto no dia 1 de fevereiro de 1915," 52–57; "Quelques considérations sur les systèmes de formes linéaires" by Miss Velleda Gradara, 58–64—No. 2: "Recherches des involutions de genres zéro, bigenre un, appartenant à une surface de genres un" by L. Godeaux, 65–78; "Discurso proferido na sessão solemne do lançamento da primeira pedra a construcção do edificio da Escola de Farmacia do Porto" by N. F. Dias Salgueiro, 79–88; "Sôbre a correlação de certos índices mandibulares com o índice cefálico" by A. Pires de Lima, 89–103; "Essai d'une théorie analytique des lignes non-euclidiennes" (continuation) by G. Pirondini, 104–124; "L. Orlando" by G. T[eixeira], 125–126; Review by A. Freire de Andrade of L. F. Navarro's *Cristalografia geométrica elemental* (Madrid, 1915), 127–128—No. 3: "Sur l'aire d'un segment de courbe convexe" by E. Turrière, 129–140; "Essai d'une théorie analytique des lignes non-euclidiennes" (continued), by G. Pirondini, 141–146; "Notas sobre Vernier" by A. Cardoso Pereira, 147–154; Reviews by Gomes Teixeira, of Lecornu's *Cours de Mécaniques* (tomes 1–2, Paris, 1914–1915), Richardson and Landis's *Fundamental Conceptions of Modern Mathematics* (Chicago, 1916), Archibald's *Euclid's Book on Divisions of Figures* (Cambridge, 1915), and L. O. de Toledo's *Elementos de Aritmética Universal*, tome 2 (Madrid, 1916), 185–188; Review by Mendes Corrêa of Frassetto's *Diagnosi e valutazione numerica delle curve in antropometrica ed in biometrica* (Rome, 1916), 189–190—No. 4: "Extrait d'une lettre adressée à F. Gomes Teixeira" by E. Turrière, 193–195; "Sur les formes isoclines et le problème Diophantique qui en découle" by V. Souza Brandão, 196–223—Volume 12, No. 1, 1917: "Sur l'aire d'une courbe plane générale" by E. Turrière, 5–12; "Sur une intégrale définie dont l'élément est une exponentielle de degré 4" by P. Appell, 12–13; "Sobre a construcção das tangentes á cissoide obliqua que passam por um ponto exterior á curva" by F. Gomes Teixeira, 14–17; "L'équation tangentielle polaire des courbes de Cesàro" by L. Braude, 18–26; Reviews by G. T[eixeira] of Rey Pastor's *Fundamentos de la geometria proyetiva superior* (Madrid, 1916) and *Introduccion á la matematica superior* (Madrid, 1916), P. Burgatti's *Lezioni di meccanica razionale* (Bologna, 1916), Halphen's *Oeuvres* (tome 1, Paris, 1916), Bôcher's *Leçons sur les méthodes de Sturm* (Paris, 1917), and Boutroux's *Les principes de l'analyse mathématique* (Paris, 1914), 53–59—No. 2, 1918: "Los problemas de la mecánica" by E. Terradas, 94–125; "Rapport de M. Appell sur les travaux de M. F. Gomes Teixeira, 126–128, [Reprinted from *Comptes rendus de l'académie des sciences de Paris*, 1917, tome 165, p. 907; Quotation: "En dressant un catalogue raisonné de ces courbes, en donnant leur histoire dans un important ouvrage, M. F. Gomes Teixeira a rendu à la science un grand service, que la Commission propose de reconnaître en lui décernant le prix Binoux"]—No. 4, 1918: "Congresso de sevilha celebrado pela Associação Espanhola para o progresso das sciencias (6–11 de Maio de 1917)" by A. F. de Lacerda, "Sciências matemáticas" 201–204; "Sur la réprésentation géométrique de la torsion d'une courbe gauche," 218–224.